REMARKS

Reconsideration and allowance of the application are respectfully requested in light of the above amendments and the following remarks.

Independent claims 18 and 34 have been amended to incorporate the subject matter of claim 23, and claim 23 has been cancelled. Support for the amendments is provided, for example, in cancelled claim 23 and in paragraphs [0051]-[0054] of the published U.S. application. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments).

Claims 18, 21-22, 24-30 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Choksi (US 6,978,144) (hereinafter, "Choksi") in view of Berger (US 6,504,821) (hereinafter, "Berger") and Cansever (US 6,678,252) (hereinafter, "Cansever"). Claim 23 was rejected under 35 U.S.C. §103(a) as being unpatentable over Choksi, Berger, and Cansever, and further in view of Klein (US 2004/0053574) (hereinafter, "Klein") or Holtzman (US 6,745,044) (hereinafter, "Holtzman"). To the extent that these rejections may be deemed applicable to the amended claims presented herein, the Applicants respectfully traverse based on the points set forth below.

Claim 18 is directed towards a method for performing a scheduling algorithm and recites the features of:

> "18. A method for performing a scheduling algorithm in a scheduler of a wireless communication system, comprising:
>
> obtaining from a communication unit *a minimum resource parameter that indicates a minimum number of allocation units* to be scheduled for a user or

> service in a scheduling frame in order to meet a resource constraint of the communication unit, and
>
> scheduling, in the scheduling frame, resources for radio access to the communication unit wherein the resources are scheduled in the allocation units and in accordance with the minimum resource parameter,
>
> wherein the allocation units are scheduled to the communication unit only if the minimum number of allocation units indicated by the minimum resource parameter can be scheduled for the service or user within the scheduling frame, and
>
> *wherein the minimum resource parameter represents a sufficient quantity to exceed a power efficiency threshold in the scheduling frame*." (emphasis added)

As explained in the specification, the method recited by claim 18 allows a receiver to operate economically with reasonable expenditure of operating and processing power. (see, e.g., par. [0020] of the published U.S. application).

To better illustrate the differences between the method recited by claim 18 and the prior art references, the following summaries are provided.

Aspects of the present invention relate to scheduling in a wireless communication network. In particular, a "minimum resource parameter" is provided by a mobile terminal or a base station. The "minimum resource parameter" may include, for example, the minimum number of allocation units or information bits which may be allocated for a user or service within a scheduling frame. Accordingly, the operating and processing power may be controlled by this parameter.

In contrast, Choksi relates to bandwidth allocation in a mobile communication system, the bandwidth being allocated by a bandwidth allocation controller capable of performing congestion control. The bandwidth allocation takes into account quality of service by means of

providing priority handling. The text portions of Choksi which are cited in the Office Action relate, in particular, to the fact that the bandwidth allocation controller is provided with information regarding the cell bandwidth usage reported by the base station. The bandwidth allocation controller then processes bandwidth requests according to their priority by taking into account the cell bandwidth usage. The requests are checked in order to determine whether the connection is subscribed to use the cell bandwidth resources, and the requests are only approved if the checking results in an affirmative result.

The Office Action (pg. 3) alleges that Choksi's disclosure of a request which "may be a handoff request, a call admission request, an additional bandwidth request, or any other suitable type of request for bandwidth" (col. 7, lines 10-12) reads on the feature of a "minimum resource parameter," as recited by claim 18. Furthermore, the Office Action alleges that Choksi teaches each of the features of claim 18 except for the feature of "...a minimum resource parameter that *indicates a minimum number of allocation units to be scheduled for a user or service*," as recited by claim 18. Moreover, the Office Action alleges that Berger or, alternatively, Canserver, cures this deficiency of Choksi by disclosing modifying a user's bandwidth request or denying the request altogether, and that this feature of claim 18 is an obvious design choice.

However, despite the allegations in the Office Action, neither Choksi nor Berger of Canserver, whether considered individually or in combination, teach or suggest the feature of "...obtaining from a communication unit *a minimum resource parameter that indicates a minimum number of allocation units*," as recited by claim 18. According to this feature of claim 18, a parameter can be signaled which specifies the size of the smallest resource portion which can be assigned within a scheduling frame in order to increase the power efficiency of the

terminal. Choksi does not mention anything about the possibility of setting the minimum of resource allocation, and on the contrary, Choksi seems to consider the largest available cell bandwidth.

Furthermore, Berger relates to resource management for ATM based networks. The "resources" disclosed by Berger are specified by block cell rate (BCR) and by block size field 30 indicating the size of a block of data to be transmitted. (col. 4, lines 12-13; Fig. 2). The resource management (RM) cell 20 (col. 4, lines 9-11) specifies these characteristics for a given connection.

Thus, Berger relates to resource management in an ATM fixed network by means of a resource management cell. Therefore, the system disclosed by Berger differs from a wireless communication system. Furthermore, as noted above, Berger discloses specifying the block size and the block transmission rate. However, Berger does not mention anything about a minimum allocation threshold, and therefore clearly fails to teach the feature of "...obtaining from a communication unit *a minimum resource parameter that indicates a minimum number of allocation units*," as recited by claim 18.

Moreover, Cansever relates to routing in ad hoc wireless networks. Based on a used bandwidth of network nodes, maximum available bandwidth is determined for the ad-hoc nodes, and resources are allocated accordingly. (col. 4, lines 15-29). Also, as noted in the Office Action, Cansever discloses denying a requested bandwidth if the requested bandwidth is greater than the maximum available bandwidth of the first node. (col. 14, lines 36-39).

However, Cansever does not mention anything about signaling of the minimum resource size parameter, and therefore clearly fails to teach or suggest the feature of "...obtaining from a

communication unit *a minimum resource parameter that indicates a minimum number of allocation units*," as recited by claim 18.

To further clarify the differences between the "minimum resource parameter" recited by claim 18 and the prior art references, claim 18 has been amended to incorporate the subject matter of claim 23, and now recites the feature of: "...*wherein the minimum resource parameter represents a sufficient quantity to exceed a power efficiency threshold in the scheduling frame*." As explained above, this feature is not related to a maximum available bandwidth, but to a minimum number of resource units for scheduling.

The Office Action (pg. 9) alleges that Klein or, alternatively, Holtzman, teaches this above-noted feature recited by amended claim 18. However, Holtzman merely discloses a general parameter for constraining a minimum supported data rate in the system. Holtzman does not teach the feature of "...*wherein the minimum resource parameter represents a sufficient quantity to exceed a power efficiency threshold in the scheduling frame*," as recited by claim 18.

Furthermore, Klein discloses a threshold reflecting a minimum gain at which a data user is allowed to transmit (see, e.g., par. [0027]-[0032]). However, a threshold reflecting a minimum gain at which a data user is allowed to transmit, as disclosed by Klein, is not the same as a minimum resource parameter which "...*represents a sufficient quantity to exceed a power efficiency threshold in the scheduling frame*," as recited by claim 18.

Accordingly, the Applicants respectfully submit that Choksi, Berger, Canserver and Klein or Holtzman, even if combined as proposed in the Office Action, would still lack at least the above-noted features recited by claim 18, and allowance of claim 18 and all claims dependent therefrom is warranted for at least this reason. Claim 34 has been amended and now recites

substantially the same features distinguishing method claim 18 from the applied references, though does so with respect to a base station. Accordingly, allowance of claims 18 and 34 and all claims dependent therefrom is warranted for at least these reasons.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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